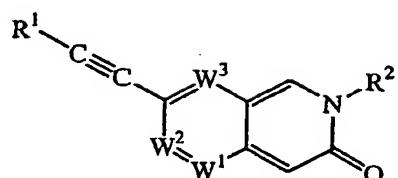


CLAIMS

What is claimed is:

5

1. A compound of Formula II



II

or a pharmaceutically acceptable salt thereof,

10 wherein:

R¹ is independently selected from:

C₅ or C₆ cycloalkyl-(C₁-C₈ alkylene);

Substituted C₅ or C₆ cycloalkyl-(C₁-C₈ alkylene);

C₈-C₁₀ bicycloalkyl-(C₁-C₈ alkylene);

15 Substituted C₈-C₁₀ bicycloalkyl-(C₁-C₈ alkylene);

5- or 6-membered heterocycloalkyl-(C₁-C₈ alkylene);

Substituted 5- or 6-membered heterocycloalkyl-(C₁-C₈ alkylene);

8- to 10-membered heterobicycloalkyl-(C₁-C₈ alkylene);

Substituted 8- to 10-membered heterobicycloalkyl-(C₁-C₈ alkylene);

20 Phenyl-(C₁-C₈ alkylene);

Substituted phenyl-(C₁-C₈ alkylene);

Naphthyl-(C₁-C₈ alkylene);

Substituted naphthyl-(C₁-C₈ alkylene);

5- or 6-membered heteroaryl-(C₁-C₈ alkylene);

25 Substituted 5- or 6-membered heteroaryl-(C₁-C₈ alkylene);

8- to 10-membered heterobiaryl-(C₁-C₈ alkylene); and

Substituted 8- to 10-membered heterobiaryl-(C₁-C₈ alkylene);

Phenyl;

Substituted phenyl;
Naphthyl;
Substituted naphthyl;
5- or 6-membered heteroaryl;
5
Substituted 5- or 6-membered heteroaryl;
8- to 10-membered heterobiaryl;
Substituted 8- to 10-membered heterobiaryl;

R² is independently selected from:

H;
10 C₁-C₆ alkyl;
Phenyl-(C₁-C₈ alkylene);
Substituted phenyl-(C₁-C₈ alkylene);
Naphthyl-(C₁-C₈ alkylene);
Substituted naphthyl-(C₁-C₈ alkylene);
15 5- or 6-membered heteroaryl-(C₁-C₈ alkylene);
Substituted 5- or 6-membered heteroaryl-(C₁-C₈ alkylene);
8- to 10-membered heterobiaryl-(C₁-C₈ alkylene); and
Substituted 8- to 10-membered heterobiaryl-(C₁-C₈ alkylene);
Phenyl-O-(C₁-C₈ alkylene);
20 Substituted phenyl-O-(C₁-C₈ alkylene);
Phenyl-S-(C₁-C₈ alkylene);
Substituted phenyl-S-(C₁-C₈ alkylene);
Phenyl-S(O)-(C₁-C₈ alkylene);
Substituted phenyl-S(O)-(C₁-C₈ alkylene);
25 Phenyl-S(O)₂-(C₁-C₈ alkylene);
Substituted phenyl-S(O)₂-(C₁-C₈ alkylene);
Each substituted R¹ and R² group contains from 1 to 4 substituents, each
independently on a carbon or nitrogen atom, independently selected from:
C₁-C₆ alkyl;
30 CN;

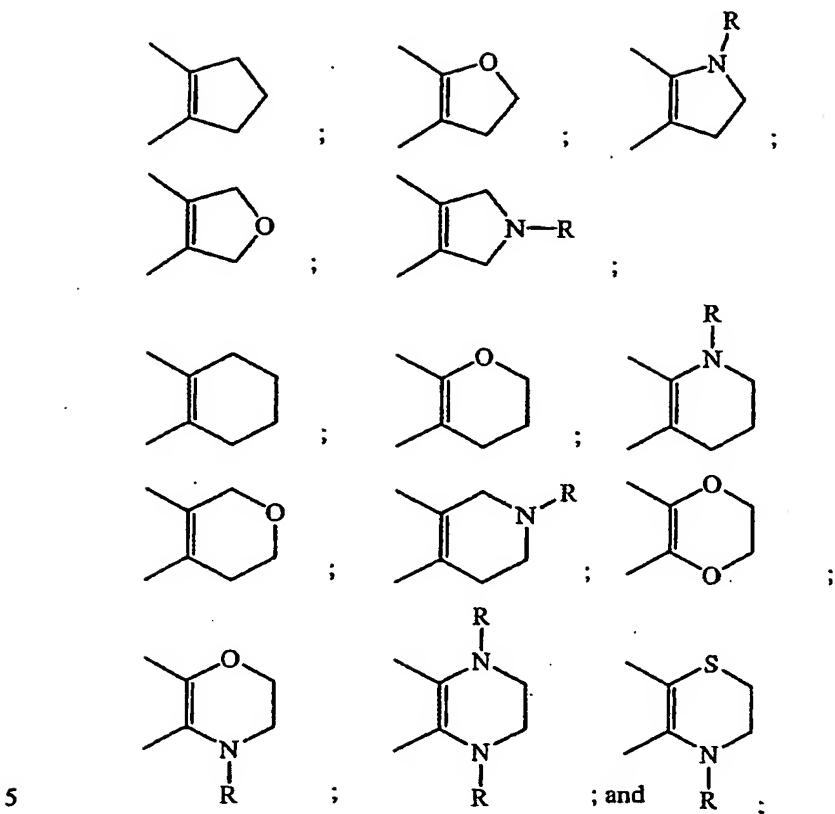
CF₃;
HO;
(C₁-C₆ alkyl)-O;
(C₁-C₆ alkyl)-S(O)₂;

5 H₂N;
(C₁-C₆ alkyl)-N(H);
(C₁-C₆ alkyl)₂-N;
(C₁-C₆ alkyl)-C(O)O-(C₁-C₈ alkylene);
(C₁-C₆ alkyl)-C(O)O-(1- to 8-membered heteroalkylenyl);
10 (C₁-C₆ alkyl)-C(O)N(H)-(C₁-C₈ alkylene);
(C₁-C₆ alkyl)-C(O)N(H)-(1- to 8-membered heteroalkylenyl);
H₂NS(O)₂-(C₁-C₈ alkylene);
(C₁-C₆ alkyl)-N(H)S(O)₂-(C₁-C₈ alkylene);
(C₁-C₆ alkyl)₂-NS(O)₂-(C₁-C₈ alkylene);
15 3- to 6-membered heterocycloalkyl-(G);
Substituted 3- to 6-membered heterocycloalkyl-(G);
5- or 6-membered heteroaryl-(G); and
Substituted 5- or 6-membered heteroaryl-(G);
(C₁-C₆ alkyl)-S(O)₂-N(H)-C(O)-(C₁-C₈ alkylene);
20 (C₁-C₆ alkyl)-C(O)-N(H)-S(O)₂-(C₁-C₈ alkylene);

wherein each substituent on a carbon atom may further be independently selected from:

Halo; and
HO₂C;

25 wherein 2 substituents may be taken together with a carbon atom to which they are both bonded to form the group C=O;
wherein two adjacent, substantially sp² carbon atoms may be taken together with a diradical substituent to form a cyclic diradical selected from:



R is H or C₁-C₆ alkyl;

G is CH₂; O, S, S(O); or S(O)₂;

Each m is an integer of 0 or 1;

Each W¹, W², and W³ is independently N or C-R⁴;

10 R⁴ is H, C₁-C₆ alkyl, H₂N, HO, or halo;

wherein each C₈-C₁₀ bicycloalkyl is a bicyclic carbocyclic ring that contains 8-, 9-, or 10-member carbon atoms which are 5,5-fused, 6,5-fused, or 6,6-fused bicyclic

rings, respectively, and wherein the ring is saturated or optionally contains one carbon-carbon double bond; wherein each 8- to 10-membered heterobicycloalkyl is a bicyclic ring that contains carbon atoms and from 1 to 4 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 4 N(H), and 4 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond, and wherein the heterobicycloalkyl is a 5,5-fused, 6,5-fused, or 6,6-fused bicyclic ring, respectively,

wherein each heterocycloalkyl is a ring that contains carbon atoms and from 1 to 4 heteroatoms independently selected from 2 O, 1 S, 1 S(O), 1 S(O)₂, 1 N, 4 N(H), and 4 N(C₁-C₆ alkyl), and wherein when two O atoms or one O atom and one S atom are present, the two O atoms or one O atom and one S atom are not bonded to each other, and wherein the ring is saturated or optionally contains one carbon-carbon or carbon-nitrogen double bond;

wherein each 5-membered heteroaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and each 6-membered heteroaryl contains carbon atoms and 1 or 2 heteroatoms independently selected from N, N(H), and N(C₁-C₆ alkyl), and 5- and 6-membered heteroaryl are monocyclic rings;

wherein each heterobiaryl contains carbon atoms and from 1 to 4 heteroatoms independently selected from 1 O, 1 S, 1 N(H), 1 N(C₁-C₆ alkyl), and 4 N, and where the 8-, 9-, and 10-membered heterobiaryl are 5,5-fused, 6,5-fused, and 6,6-fused bicyclic rings, respectively, and wherein at least 1 of the 2 fused rings of a bicyclic ring is aromatic, and wherein when the O and S atoms both are present, the O and S atoms are not bonded to each other;

wherein with any $(C_1\text{-}C_6 \text{ alkyl})_2\text{-}N$ group, the $C_1\text{-}C_6$ alkyl groups may be optionally taken together with the nitrogen atom to which they are attached to form a 5- or 6-membered heterocycloalkyl; and wherein each group and each substituent recited above is independently selected.

5 2. The compound according to Claim 1, selected from:

10 4-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid tert-butyl ester;

10 4-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid;

15 2-(3,5-Difluoro-4-hydroxybenzyl)-7-[3-(4H-[1,2,3]triazol-4-yl)prop-1-ynyl]-2H-isoquinolin-3-one;

15 7-(3-Phenyl-prop-1-ynyl)-2-(4-trifluoromethylbenzyl)-2H-isoquinolin-3-one;

20 2-(3-Fluorobenzyl)-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-3-one;

20 4-[7-(3-Imidazol-1-ylprop-1-ynyl)-3-oxo-2H-isoquinolin-2-ylmethyl]benzoic acid tert-butyl ester;

20 4-[7-(3-Imidazol-1-ylprop-1-ynyl)-3-oxo-2H-isoquinolin-2-ylmethyl]benzoic acid;

25 3-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzonitrile;

25 4-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzenesulfonamide;

25 4-[3-Oxo-7-(3-[1,2,3]triazol-1-ylprop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid tert-butyl ester;

30 4-[3-Oxo-7-(3-[1,2,3]triazol-1-ylprop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid;

30 4-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid methyl ester;

3-[3-Oxo-7-(3-phenyl-prop-1-ynyl)-2H-isoquinolin-2-ylmethyl]benzoic acid methyl ester;
2-(4-Fluorobenzyl)-7-3-phenylprop-1-ynyl-2H-isoquinolin-3-one;
7-(3-Phenylprop-1-ynyl)-2-(3-trifluoromethylbenzyl)-2H-isoquinolin-3-one;
5
2-(3-Chlorobenzyl)-7-(3-phenylprop-1-ynyl)-2H-isoquinolin-3-one;
2-(3,4-Difluorobenzyl)-7-(3-phenylprop-1-ynyl)-2H-isoquinolin-3-one;
and
4-[1-Oxo-7-(3-[1,2,4]triazol-1-ylprop-1-ynyl)-2H-isoquinolin-3-ylmethyl]benzoic acid tert-butyl ester; or
10
a pharmaceutically acceptable salt thereof.

3. A pharmaceutical composition, comprising a compound according to
Claim 1, or a pharmaceutically acceptable salt thereof, admixed with a
15 pharmaceutically acceptable carrier, excipient, or diluent.

4. A method for treating osteoarthritis, comprising administering to a patient
suffering from osteoarthritis a nontoxic effective amount of a compound
according to Claim 1, or a pharmaceutically acceptable salt thereof.
20

5. A method for treating rheumatoid arthritis, comprising administering to a
patient suffering from rheumatoid arthritis a nontoxic effective amount of a
compound according to Claim 1, or a pharmaceutically acceptable salt thereof.